Life beyond local content: Exploring alternative measures of industry support in the context of WTO accession

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ABSTRACT

This paper explores the industrial policy options and constraints confronting countries acceding to the World Trade Organization stemming from the obligation to phase out non-compliant local content requirements (LCRs). The widespread recourse to various local content practices and their political economy appeal make their removal a daunting task in many countries, particularly those characterized by weak productive diversification and a heavy reliance on extractive activities. After reviewing the policy rationale behind the prohibition of LCRs, the paper advances a number of alternative measures of industry support available to WTO acceding countries, placing particular emphasis on corporate social responsibility incentives and the design of supplier development programmes aimed at strengthening linkages between foreign invested or lead firms to an ecosystem of typically small and medium-sized local suppliers.

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1. Introduction

Local content requirements ("LCRs") have long represented a policy instrument of choice for countries seeking to offer support or protection to domestic producers and workers and to extract greater benefits from inward foreign investment. Such measures have long been extensively used in countries, particularly those whose development prospects are closely tied to extractive industries. In such settings, where enclave characteristics are often strongly decoupled from the rest of the host economy, the need to ensure that resource-seeking investments generate local value-added in the form of purchases of locally produced goods, services and the use of local workers may be particularly important for technological upgrading.

LCRs typically command widespread political appeal. And for good reason: they are easy to implement, relative to tariffs or subsidy programmes; do not tax the national treasury, unlike subsidies or incentives; and appear to generate benefits whose immediacy is gratifying to those bestowing them, unlike other industry support measures tackling underlying competitiveness challenges, whose impacts often materialize over longer time horizons and involve greater coordination and implementation complexities.

LCRs were broadly unconstrained by international trade and investment law until the completion of the Uruguay Round of multilateral trade talks and the entry into force of the Marrakesh Agreement establishing the WTO in 1995. The creation of the WTO saw the introduction of multilateral disciplines curtailing or prohibiting the use of a number of performance requirements ("PRs"), which included local content rules. Prior to the Uruguay Round, the vast majority of WTO Members, including its most developed ones, made abundant use of LCRs in shaping their national industries. They did so often through a combination of high tariffs, LCRs and other non-tariff instruments with a view to compelling investors into so-called "tariff hopping"[1] forms of predominantly market-seeking[2] foreign direct investment.

LCRs have featured prominently in the development and industrial policy mix of a number of recently-acceded WTO Members and continue to do so in a number of would-be members whose economies are heavily dependent on extractive industries. In countries such as Saudi Arabia, Russia, Kazakhstan, Algeria, Iraq, or Iran, all of whom recently joined the WTO or are in its accession queue, the sheer weight of extractive industries and the continued importance of state-centric pro-

1 The term "tariff hopping" investment refers to cross-border investment flows induced by the prohibitive cost of cross-border transactions resulting from high tariffs. Such costs leave foreign producers with little choice but to locate a production unit behind the trading partner's tariff wall in order to be able to sell competitively in the foreign (host country) market.

2 Market-seeking investment refers to FDI that is motivated by the potential to deliver goods and services to customers within the host country. It is almost entirely dependent on the size and characteristics of the host country's domestic market. It can be an important source of jobs, particularly of higher-skilled, better-paying, jobs associated with the service sector. Potentially, it represents a more inclusive form of economic activity than natural resource-seeking investment. Market-seeking investment can help bring international business practices, standards, knowhow and technology to the host country. This type of investment is an important means to industrialize a country and has the potential to make a particularly strong contribution to the development of linkages to the local economy, quality upgrading of local suppliers, as well as transfer of knowhow and spillover effects. Market-seeking investors can help create competition within the domestic economy, increase productivity and lower prices to consumers. Improvements in local goods and services generated by market-seeking investment can contribute to enhancing the general business climate, render the country more competitive, and provide a platform for other kinds of investors.

curement practices affecting markets for goods, services and workers mean that LCRs typically form a centrally important component of the industrial policy landscape. Not surprisingly, their mandated removal in the context of WTO accession and the identification of credible alternative measures of industry support, has been, and remains, contentious in political, business and policy circles.

This paper explores the above policy controversies from a law and economics perspective, taking up key elements of the policy debate spawned by the quest for sustainable policy alternatives to local content requirements in the context of WTO accession. The paper is divided into six parts. Following the above introductory and context-setting remarks, Sections 2 and 3 situate the issue of local content within the broader context of a typology of performance requirements, their main underlying economic rationales and perceived effectiveness. In so doing, a distinction is drawn between four main categories of performance requirements: (i) those that aim to strengthen domestic capacity; (ii) those aimed at creating backward and forward linkages; (iii) those targeted at enhancing labour market outcomes; and (iv) those linked to export performance. This is followed, in Section 4, by a discussion of the economic reasoning behind the prohibition of local content requirements in international trade and investment law. Section 5 explores the range of alternatives to local content requirements. It does so by first detailing how host countries can make ready use of the flexibilities foreseen under existing trade and investment instruments before drawing attention to a range of so-called "lighter touch" industrial policy options aimed at promoting economy-wide gains in competitiveness while also strengthening linkages between domestic suppliers and lead investors (domestic or foreign). The latter discussion further distinguishes between "horizontal" (or non-sector specific) and "selected" industrial policy measures targeting informational barriers between lead investors and local suppliers. Key among the latter group of industry support measures are efforts centred on the corporate social responsibility of lead investors and the deployment, notably through strengthened national investment promotion agency efforts, of supplier development programs offering incentives for lead firms to buttress the competitiveness of indigenous suppliers. Section 6 concludes with a number of additional policy observations.

2. A typology of performance requirements

Performance requirements (PRs), of which local content requirements (LCRs) form a central part, are defined as "*stipulations, imposed on investors, requiring them to meet certain specified goals with respect to their operations in the host country*"[3]. They are and have been used extensively by developed and developing countries together with other policy instruments, such as trade policy, investment screening mechanisms and various incentives, to enhance a variety of development and industrial policy objectives. There is a vast body of literature examining the economic impact of PRs.[4] As is common to almost all fields of economic enquiry, and particularly so in development economics, opinions diverge markedly regarding the effectiveness of PRs – including LCRs - as tools to maximize the host country benefits of inward FDI. While some experts regard them as an essential instrument in a country's FDI policy package, others consider their impact as limited at best and as costly and counter-productive at worst.

3 United Nations Conference on Trade and Development, *Foreign Direct Investment and Performance Requirements: New Evidence from Selected Countries* (Geneva: UNCTAD, 2003).

4 For a good summary of this literature, see Theodore H. Moran, Edward Montgomery Graham, and Magnus Blomström, ed., *Does Foreign Direct Investment Promote Development*? (Washington, D.C.: Institute for International Economics, 2005).

The economic rationale for applying a PR depends on the objective of the measure. In general, the role of such requirements is to address some form of market or policy failure related, for instance, the presence of positive or negative externalities, information asymmetries and/or investor conduct in responding to opportunities prevailing in a host country market.

Specific objectives for imposing PRs include: (i) strengthening a country's industrial base and increasing domestic value added; (ii) generating expanded employment opportunities; (iii) promoting vertical linkages between lead (foreign) firms and (local) suppliers; (iv) increasing exports; (v) balancing trade; (vi) promoting regional development and spatial gaps in development levels; (vii) fostering technology transfers; (viii) avoiding restrictive business practices; (ix) generating and distributing economic rents; and (x) pursuing various non-economic objectives, such as political independence, the promotion of minority rights or the (re-)distribution of political power.

While host countries have in recent decades increasingly welcomed inward FDI, and as cross-border competition to attract so-called efficiency-seeking FDI[5] has greatly intensified in the context of production fragmentation and the rise of global (and regional) value chains ("GVCs"), increasing attention has been devoted to raising the quality of inward investment and to enacting policies that maximize the local developmental benefits of such investment, without, however, chasing away FDI characterized by its increasingly footloose nature.

There is, today, much greater awareness within policy-making circles of variations in the quality of inward FDI and the associated impacts such inflows can exert on host countries. There is, similarly, much greater attention to the fact that some host country environments may simply be less conducive to benefiting from FDI, irrespective of the strategy or operational behaviour of foreign investors. For example, weak domestic capabilities – whether in the form of poorly trained workers or weakly competitive suppliers - will generally hamper a host country's ability to attract, retain and reap the benefits of inward FDI. Such weaknesses will also limit knowledge spillovers and backward linkages. At the same time, in countries with relatively inefficient domestic enterprises or whose firms are not yet at the technological frontier, inward FDI can produce a productivity shock able to boost the competitiveness and performance of local competitors and suppliers through the transfer of improved knowledge and production processes. In today's more footloose GVC world, recourse to PRs and LCRs has become more challenging to enact and is increasingly associated to the granting of locational and/or behavioural incentives.

5 Efficiency-seeking investment is always export-oriented, although business viability can often be built on a strong (typically larger) domestic consumer base. The key determinant for all types of efficiency-seeking investment is "competitiveness." Efficiency-seeking investment has the most transformative potential of all types of foreign investment, with its ability to transfer technology and skills and to diversify an economy rapidly by inserting it into global or regional value chains of goods and/or services. This type of FDI is potentially a powerful vehicle for transforming the export supply of a country, opening it up to new foreign markets and allowing domestic workers to move up the value chain. Such investment occurs where investors seek to increase the cost efficiency of production by taking advantage of factors that improve firm-level competitiveness. These include, among others, lower labor costs or higher labor productivity, easier or even preferential access to export markets, access to key inputs and components, and more efficient international production and supply patterns. However, efficiency-seeking investment is among the most difficult to attract and retain, not least because so many factors must align to make the host country an appropriate venue for a particular production process at a particular moment in time. Countries tend to compete aggressively for this type of investment. A key element in attracting such investment is the quality and cost competitiveness of a country's service infrastructure, from the "hardware" of physical infrastructure allowing goods and services to reach export markets efficiently and reliably to the "software" of skills and human capital required to upgrade to higher value segments of supply chains.

Developing and transition economies have traditionally made heavy use of performance requirements, the most prominent of which have been LCRs. Such measures are most prevalent in the automobile, chemical and petrochemical, electronic equipment and extractive industries. However, LCRs and other types of performance requirements have also been imposed by a number of countries in various other sectors, including in services.

PRs may cover all aspects of the investment life-cycle.[6] They can be imposed at the point of investment entry and subsequent post-entry expansion or, as is increasingly the case, as a condition for the provision of some kind of locational advantage or incentive.

As Table 1 below shows, PRs can be divided into three main categories. The first category consists of those PRs that are explicitly prohibited by the WTO Agreement on Trade-Related Investment Measures ("TRIMs") in light of their inconsistency with Articles III:4 (National Treatment) and XI (Prohibition of Quantitative Restrictions) of GATT 1994. The second category relates to measures that are explicitly prohibited, conditioned or discouraged by various international investment or preferential trade agreements ("IIAs" and "PTAs"), be they bilateral, regional or plurilateral in character. The latter measures are not subject to multilateral disciplines under the TRIMs Agreement. They are often described as "WTO+" in character. Third category covers performance requirements that are not subject to control through any international investment or trade agreements, affording countries full policy immunity for their use.

TABLE 1: CATEGORIES OF PERFORMANCE REQUIREMENTS UNDER TRADE AND INVESTMENT LAW

i) Prohibited by the WTO TRIMs Agreement	
•	Local content requirements.
•	Trade-balancing requirements.
•	Foreign exchange restrictions related to the foreign-exchange inflows attributable to an enterprise.
•	Export controls.
ii) Prohibited, conditioned or discouraged by IIAs and PTAs	
•	Requirements to establish a joint-venture with domestic participation.
•	Requirements for a minimum level of domestic equity participation (e.g. joint-venture requirements).
•	Requirements to locate headquarters in a specific region.

6 The investment lifecycle framework rests on the notion that FDI is not a one-time transaction between the host Government and a foreign firm but rather entails an ongoing relationship with many stakeholders at all stages of a foreign investor's lifecycle in the host country. The investment lifecycle consists of five elements: (i) vision; (ii) attraction; (iii) establishment; (iv) retention; and (v) linkages. The lifecycle begins with the setting of the country's investment vision, priorities and strategy for FDI. Next, investment attraction identifies how the country will market itself to potential investors. Investment establishment is the phase when an investor has made the decision to establish an enterprise in the host country and covers practical and legal steps that the investor must undertake to set up the business. For purposes of investment retention, how investors are treated and whether investors have adequate levels of protection are relevant. Given that reinvestment of earnings and expansions by existing investors are important as a source of investment, how established investors are treated is particularly relevant. Finally, the full benefits of investment are only achieved through enhancing the forward and backward linkages and spillovers from investment with the local economy.

•	Employment or training requirements.
•	Export requirements.
•	Restrictions on sales of goods or services in the territory where they are produced or provided.
•	Requirements to supply goods produced or services provided to a specific region exclusively from a given territory.
•	Requirements to act as the sole supplier of goods produced or services provided.
•	Requirements to transfer technology, production processes or other proprietary knowledge.
•	Research and development requirements.
iii)	**Not restricted**
•	All other performance requirements.

Performance requirements can be further categorized according to several criteria. First, *mandatory* PRs can be distinguished from *non-mandatory* ones. Mandatory PRs are linked to the conditions for entry and operation of an investment. The investor must agree to them to make its investment or continue to operate. Non-mandatory PRs, on the other hand, are typically linked to access to certain advantages, such as host country tax exemptions or subsidies/incentives. While an investor can decide not to comply with such PRs, it may not be easy to do so in practice as some types of incentives do not really give the investor the possibility of refusing to comply with the PRs, because of the attractiveness of incentives being offered.

To the extent that mandatory requirements are applied, they most often relate to domestic market-seeking and resource-seeking FDI. The bargaining power of host countries is stronger with respect to firms seeking access to natural resources or domestic markets than to firms that consider a number of potential sites for export production. There are consequently few examples of mandatory requirements imposed on export-oriented manufacturing. The ability of a country to use various performance requirements often depends on its economic importance, mainly in terms of market size. Even among developed countries, smaller ones, such as Belgium and Ireland, have generally relied more on "voluntary" requirements than on stringent mandatory criteria imposed at the point of entry. Similarly, while large countries like India, China, Brazil, Indonesia and South Africa have, at times, been able to leverage their large domestic markets to entice market-seeking foreign investors to start exporting; such obligations are generally more challenging for smaller or less connected economies to impose.

At the same time, developing countries may lack the institutional capacity to apply some of the strategic trade and investment policies that are used increasingly by developed countries to achieve similar objectives as certain performance requirements. This is particularly so when market size and political leverage form important policy determinants. Whereas both the United States and the EU have the potential means to engage, for instance, in strategic anti-dumping actions, to aggressively use rules of origin in their PTAs to induce inward FDI in sensitive sectors or to design defence-related procurement practices with a view to their likely positive spillovers on innovation, industrial upgrading and export performance, such options are generally not available to most nations. This arguably includes WTO acceding countries, not least because their very status as

outsiders will constrain their policy space to a greater extent than that of the founding members of the world trade body.

A second distinction to be made in regard to PRs distinguishes those measures that are imposed on the investor *before* an investment is made (so-called pre-establishment PRs) and those imposed afterwards (i.e., *post-establishment* PRs). This distinction can carry significant legal and policy implications. PRs imposed after the investment is made, particularly mandatory PRs, are more likely to breach (or to be seen as breaching) a host state's commitments under trade and investment treaties.

Finally, one can distinguish between PRs according to whether they are covered by *national legislation* or *investment contracts* between the host state and the investor. For instance, in many recently acceded countries such as Saudi Arabia, Russia or Kazakhstan, a significant share of local content requirements flow from investment contracts entered into by the Government with investors engaged in sub-surface activities.

3. Assessing the effectiveness of various performance requirements

As noted above, performance requirements aim to generate benefits from investment over and above what might normally occur in their absence. The four most common forms of PRs are: (i) requirements that aim to strengthen domestic capacity; (ii) requirements, among which LCRs, that aim to build backward or forward linkages; (iii) requirements for firms targeted by PRs to improve labour market outcomes; and (iv) requirements targeting the export performance of locally-established firms.

Because such a typology spans areas that are either subject to WTO law or immune from it - hence offering possible alternative measures that would-be acceding countries may wish to consider in replacing LCRs, the discussion that follows briefly reviews what the literature has to say about their economic and developmental efficacy.

3.1 Requirements that aim to strengthen domestic capacity include technology transfer requirements, requirements to perform research and development ("R&D") in the host country market, as well as joint-venture requirements.

Technology transfer requirements typically mandate that investors bring some specified level of technology (usually proprietary technology) to the host country, with a view to ensuring that investments operate at a global industry standard, or with the best available technology. Examining the impact of this type of requirement, Moran[7] and UNCTAD[8] found little evidence of successful implementation. Major challenges were found to arise in monitoring technology transfer require-

7 Moran, Graham and Blomström, *Foreign Direct Investment and Development*; Theodore H. Moran, "How Does FDI Affect Host Country Development? Using Industry Case Studies to Make Reliable Generalizations," in *Does Foreign Direct Investment Promote Development*?, ed.Theodore H. Moran, Edward Montgomery Graham, and Magnus Blomström (Washington, D.C.: Institute for International Economics, 2005), 281-313.

8 UNCTAD, *Foreign Direct Investment and Performance Requirements: New Evidence from Selected Countries* (2003).

ments and, more fundamentally, in the difficulties a host country government may face in determining what technologies particular firms in specific sectors and countries should be using.

Host country governments are also prone to require that R&D expenditure be undertaken at some particular level, often specified as a percentage of a firm's operating costs or turnover. Like technology transfer requirements, these are most often used in the manufacturing sector, where they are usually formulated as voluntary performance requirements, i.e., as a condition for receiving industry support. While requirements of this type are rarely mandatory in nature, the empirical evidence shows that even voluntary requirements tend to be ignored. Setting up an effective local R&D facility may be particularly challenging in the absence of local capacity to absorb, adapt and develop the technology, and the costs of doing so may exceed the government incentives on offer.[9] To be successful, any such requirement needs to be accompanied by national efforts at establishing working national systems of innovation, including support for education and vocational training.[10]

Joint-venture requirements mandate that a foreign investor in a particular sector operate as an equity joint-venture with a local partner. In practice, such requirements are usually expressed as a demand that any investment has a certain percentage of domestic ownership. These requirements are most often aimed at building competitive capacity in domestic partners by exposing the latter to the modern technologies, improved management practices, and global marketing channels and experience of foreign partner firms. China, in particular, made heavy use of such requirements in its drive to foster globally competitive national firms in the manufacturing and heavy industry sectors from the 1980's onwards.

Experience tends to show that joint-venture requirements are not easy tools to use effectively. They are rarely welcomed by investors, who will naturally prefer to hold a majority stake so as to exercise maximum control over corporate strategies. As Cosbey[11] notes, while joint-ventures are ideally a union of entities with shared objectives and complementary strengths, mandatory joint-ventures in countries with under-developed partners will usually bring neither of these prerequisites for the foreign firm. More often than not, forced arrangements may generate lingering sentiments of mistrust, particularly with respect to the appropriation of technology. Moran[12] found that technology employed in mandatory joint-ventures was on average 3 to 10 years out of date, and that technical training provided to local affiliate staff was a fraction of that provided in wholly-owned subsidiaries. Not surprisingly, the above characteristics of mandatory joint-venture requirements may make them more prone to failure.

9 Ibid.

10 Aaron Cosbey, "Everyone's Doing It: The Acceptance, Effectiveness and Legality of Performance Requirements," *Investment Treaty News*, IISD, February 19, 2015, https://www.iisd.org/itn/2015/02/19/everyones-doing-it-the-acceptance-effectiveness-and-legality-of-performance-requirements/ (accessed April 12, 2016); Theodore H. Moran, "Foreign Investment and Supply Chains in Emerging Markets: Recurring Problems and Demonstrated Solutions," *PIIE Working Paper 14-12*, (Washington D.C.: Peterson Institute for International Economics, 2014).

11 Aaron Cosbey, *Everyone's Doing It.*

12 Theodore H. Moran, "The Relationship between Trade, Foreign Direct Investment, and Development: New Evidence, Strategy, and Tactics under The Doha Development Agenda Negotiations" (Paper prepared for ADB's Study on Regional Integration and Trade: Emerging Policy Issues for Selected Developing Member Countries, 2002).

The examples of China, Korea, India and other large host country markets, where much FDI pursues market-seeking opportunities, do show, however, that joint-venture requirements can be effectively employed. In the end, host countries need to balance the benefits derived (both economic and non-economic) against the potential to deter FDI. Only host countries in positions of relative strengths *vis-à-vis* foreign investors should contemplate the use of such policies. This will more rarely be the case when host countries seek to attract efficiency-seeking FDI.

3.2 Requirements that aim to build backward or forward linkages include requirements for local content and/or the domestic procurement of input goods, services, and labour, as well as requirements that products are processed in-country.

The main objective of the above types of measures is to address enclave effects - common in natural resource-seeking investment projects - that contribute very little outside of expenditures on core functions, import most inputs, technology and experts needed in the course of operation, employ few locals, and often export largely unprocessed raw materials.

While local content requirements are WTO-illegal under the TRIMs and Agreement on Subsidies and Countervailing Measures ("SCM") Agreements, local procurement requirements, i.e., state purchases made contingent on the use of local over foreign goods, may be used so long as a WTO Member is not a party to the WTO's plurilateral Government Procurement Agreement or its PTA equivalent. Such requirements, which foster backward linkages into the economy, have been shown to be successful under the right circumstances and accompanying policies.[13] For instance, and as is commonly practiced in Kazakhstan, Brazil's national agency for oil and gas and biofuels - ANP - has used local content as one of its three criteria for awarding petroleum rights, and has seen commitments to local content increase from 25 per cent in the year the programme started to almost 80 per cent a decade later. As Cosbey[14] notes, part of Brazil's success can be traced to the leadership demonstrated by Petrobras, the state-owned oil producer, in fostering backward linkages in the sector. Credit also goes to Brazil's long-standing drive for localization, its attention to best practice, and a broad mix of policies of which performance requirements are only one part.

Among best practice lessons are that (voluntary) local content targets should not be set higher than local suppliers are able to meet, though they should be set high enough to push suppliers to greater efficiencies. In other words, it is important to push suppliers, but care must be taken to not do so beyond a point they cannot reach.[15] Another important lesson is that local procurement requirements by themselves may not be enough. Support from both the host country government and the firms involved (in the form of supplier development programmes, for example) can be critical in helping build up the capacity to meet ambitious local content targets. As well as capacity building, government support targeted at easing access to credit for potential suppliers can also be effective. Most are small and medium enterprises whose access to finance is difficult at best. Such problems are most acute for service producing firms, whose predominantly small size and often intangible assets constrain their ability to collateralise loans.

13 UNCTAD, *Foreign Direct Investment and Performance Requirements: New Evidence from Selected Countries*, (2003); Dani Rodrik, "What's So Special about China's Exports?", NBER Working Paper No. 11947, 2006, http://www.nber.org/papers/w11947 (accessed April 12, 2016).

14 Aaron *Cosbey, Everyone's Doing It.*

15 Ibid.

3.3 Requirements for targeted firms to improve labour market outcomes include requirements for a specified level of local employment (or management), and requirements to train local employees or build capacity in suppliers. Employment or training requirements are employed in various forms by many host countries around the world, both developed and developing.

While the results of such policies have, at times, been mixed, they rarely spark controversy inasmuch as firms have an inherent interest in enhancing the skills base and productivity of their workers if they seek to become frontier producers. Training in quality assurance and productivity-enhancing skills appear most conducive to facilitating progress into higher quality and higher value-added products. A number of countries accord special tax rebates to firms engaging in such training activities. For instance, in Malaysia, firms directing training expenditures at the acquisition of specific types of skills can benefit from a doubled corporate tax deduction scheme for training-related expenditures.

Developed countries commonly attach employment criteria to the granting of fiscal or investment incentives. In Ireland, for instance, the grant cost per job created was the key guideline for offering incentives. The grant level could increase if projects involved higher value-added and increased skill content.

As in the case of local procurement requirements, the key with local employment and management requirements is to help ensure that there is, in fact, adequate supply of quality inputs to fill market needs. In many countries, available skills are not properly aligned to investor needs. Mandating the demand for local hiring without addressing such an underlying problem – first through continuous dialogue with the firms involved to gauge their needs, second through strengthened labour market forecasting techniques, and third through joint curriculum design and training activities involving foreign firms, particularly as regards often scarce but critically important vocational skills, typically form part of the answer. An example of such pro-active engagement can once more be found in Brazil where, since the 1990s, the country has set aside a percentage of oil sector royalties for the Oil and Gas Sectoral Fund, which supports, among other things, specialised training at vocational and local university institutions. Since 1999, the programme has provided over 5,000 post-graduate scholarships for professionals destined for the oil, gas and biofuels sectors.[16] Kazakhstan's Ministry of Investment and Development has recently signalled a desire to implement a programme along similar lines in the wake of the country's recent accession to the WTO. Such PRs, it need be recalled, are not prohibited under the WTO's TRIMs Agreement, nor are they subject to constraints under the IIAs or PTAs to which Kazakhstan is currently a party. [17]

Requirements for training of local employees are, not surprisingly, widely used. As with Brazil, South Africa and Malaysia have also established skills development funds into which businesses must pay, and these have been relatively successful at improving employee skills (UNCTAD, 2003).[18] Often, such training is done as a quasi-voluntary effort by the firms involved in response to requirements for localization of the labour force to overcome the critical problem of lack of ap-

16 Jane Korinek, "Mineral Resource Trade in Chile Contribution to Development and Policy Implications," OECD *Trade Policy Paper No. 145 (2013)*, http://dx.doi.org/10.1787/5k4bw6twpf24-en (accessed April 12, 2016).

17 AMCHAM, *Improving Kazakhstan's Investment Climate: Top Ten Barriers to Foreign Investment, Almaty: American Chamber of Commerce in Kazakhstan* (AMCHAM), (May 2014).

18 UNCTAD, *Foreign Direct Investment and Performance Requirements: New Evidence from Selected Countries*, (2003).

propriate skills. The high cost of employing expatriate employees naturally induces foreign firms to seek to maximize local hiring opportunities.

Requirements to build capacity in suppliers are less common, even as a rising chorus of corporate social responsibility ("CSR") programmes call on investors to develop "shared value", where local supplier firms are supported to become more globally competitive, and the lead foreign investor is incentivized to strengthen local supply capacity benefits from higher quality locally sourced inputs, which may often be better adapted to local conditions than what might be available internationally (Porter and Kramer, 2011). BHP Billiton ("BHBP"), an Australian mining company, offers one example of innovative collaboration in a host country setting. In developing its Cluster Programme in Chile, BHPB identified a number of key operational challenges that it needed to solve in its country operations. It further selected a number of candidate domestic firms tasked with solving the problems, and enabled them to work innovatively on solutions.[19]

The extent to which requirements in this area have a positive impact on the stated development objectives partly depends on the value of the efforts accruing to the investors. For example, the more interested companies may be in enhancing the skills of their own workforce or that of their suppliers or distributors, the more likely it is that they will participate willingly in such programmes. Investor interest will also be governed by the manner in which employment or training requirements and incentives are implemented. An excess of administrative burdens and compliance conditions will, more often than not, prove counter-productive. The programmes depicted above may be most appropriate for countries that already have fairly advanced suppliers. Forced mandates to undertake training, without parallel supporting policies for suppliers, may produce reluctant efforts and unimpressive results.

3.4 Requirements linked to export performance represent only one of a wide range of policy measures that have been applied by countries to promote export-led growth with the involvement of inward FDI. Other measures include various incentives, tariff cuts, efforts to upgrade the physical and technical infrastructure (including through the creation of EPZs), human resource development and various trade facilitation measures. While a number of bilateral investment treaties and, especially, preferential trade agreements, featuring comprehensive investment disciplines constrain or prohibit the use of export-related performance requirements, export-related performance requirements are not prohibited under the WTO's TRIMs Agreement, having previously been found GATT-consistent by the trade body's 1984 dispute ruling on various aspects of Canada's Foreign Investment Review Act (the so-called "FIRA case").[20]

In countries that have embarked on an import substitution approach, export performance requirements have also frequently been employed to counterbalance an anti-export bias. By making market access contingent on exporting, for example, foreign firms might be induced to reconsider the orientation of their activities in favour of external markets. There are examples of such government interventions having led some first mover firms - so-called "lead investors" - to establish new export platforms, triggering subsequent decisions by other firms to do likewise in the same

19 Andrew Barnett and Martin Bell, "Is BHP Billiton's Cluster-Programme in Chile relevant for Africa's mining industry?," The Policy Practice Brief 7) (2011), http://thepolicypractice.com/wp-content/uploads/2014/09/PolicyBrief7.pdf (accessed April 12, 2016); also in Cosbey, "Everyone's Doing It."

20 Canada - Administration of The Foreign Investment Review Act, (FIRA), (L/5504 - 30S/140), Report of the Panel adopted on February 7, 1984.

industry.[21] The experience of Intel in Costa Rica offers one example of the powerful signals that a large first mover investor can send about a host country's investment climate.

Export performance requirements are widely seen to have helped Malaysia succeed in expanding its manufactured exports, especially of electronic components in which it today commands a significant share of the world market. In Chile, export performance requirements were also found to be useful in diversifying the country's thin, resource-based, export mix. In South Africa, export requirements have long formed an integral part of the Motor Industry Development Programme, which appears to have been successful in promoting the internationalisation of the South African automotive industry. It has notably allowed the country to take fuller advantage of expanded access to the United States market when the US African Growth Opportunity Act (AGOA) was implemented. In India, some domestic-market seeking FDI, for example in the agro-food and automotive industries, has complied with export requirements that were imposed as a condition for market access and resulted in some favourable externalities to the host economy in the form of vertical trade linkages as well as the diffusion of new technology.

In some instances, as Moran[22] reports, exports have continued to grow even after mandatory export requirements expired, suggesting that foreign companies (or local workers from them establishing their own enterprises) may have discovered new profit opportunities through export performance requirements. The case of Intel spin-offs in Costa Rica is once more particularly evocative in this regard, with several highly successful SMEs having been launched by former Intel employees becoming suppliers to the firms whilst also branching out into new export domains such as medical devices.

Other countries have also made use of various export performance requirements in their industrialization strategies. China, for example, successfully pushed foreign enterprises to export through such requirements imposed at the time of entry.[23] In Brazil, Mexico and Thailand, export requirements were successfully used for triggering a burst of export-focused investments in the automotive industry.[24] In the mid-1980s, the Government of Thailand started imposing similar requirements on foreign affiliates to push them to export. That prompted the Japanese automobile producers to think of integrating Thailand into their global production networks. The development of an internationally competitive automotive parts industry in the country also attracted investments by global companies such as General Motors, DaimlerChrysler and Ford. Thailand has emerged as South-East Asia's main automotive hub, ranking as the third largest exporter of automotive products in Asia after Japan and South Korea.

It bears noting that the more successful examples of the use of *mandatory* export requirements mostly relate to developing countries endowed with fairly large domestic markets, which gave their governments a relatively strong bargaining position *vis-à-vis* foreign investors. While the ability to link export performance criteria to domestic market access is likely to be less feasible in smaller economies (or may need to be voluntary in character and linked to incentives), the process of globalization and market integration has somewhat eroded the bargaining power of large countries in many industries. In the cases of Chile, Malaysia and South Africa, for instance, Moran[25] reports that export performance re-

21 Moran, Graham and Blomström, *Foreign Direct Investment and Development.*

22 Moran, *The Relationship between Trade, Foreign Direct Investment, and Development.*

23 Margaret M. Pearson, *Joint Ventures in the People's Republic of China: The Control of Foreign Direct Investment under Socialism* (Princeton: Princeton University Press, 1991).

24 Moran, *Foreign Direct Investment and Development.*

25 Moran, *The Relationship between Trade, Foreign Direct Investment, and Development.*

quirements were closely linked to fiscal incentives or equity ownership advantages and were perceived by investors more as a positive inducement to make use of host-country comparative advantages than as a burden. The electronics firms that invested in Malaysia did so from the outset mainly to supply fast-growing regional and global markets, meaning that exports would have likely increased even in the absence of the performance requirements. Still, the incentives granted to export-oriented projects may have contributed to attracting and expanding such investments in Malaysia.

4. Contending with local content requirements: the economics of prohibition

Upon joining the WTO, new Members confront the need to terminate various WTO-inconsistent local content practices and must look for alternative means of industry support. Doing so is necessary for two main reasons. A first, obvious, reason stems from the very illegality of LCRs under the WTO's SCM and TRIMs Agreements. Accordingly, acceding country governments typically agree, subject to transition periods of varying length, to phase out various LCR practices under their Protocols of Accession.

Beyond their legal anchoring in various WTO provisions (and their legal equivalents under bilateral investment treaties (BITs) and preferential trade agreements (PTAs)), a second reason for the prohibition of LCRs can be traced to a set of economic and political economy considerations that underpinned the development of trade disciplines curtailing or prohibiting their use. Several of these recur in the economic literature devoted to LCRs.[26]

First, the support provided by LCRs to domestic producers can be highly variable, relative to a tariff or a subsidy, such that government officials rarely have credible information on the effective rate of protection (expressed in *ad valorem* tariff equivalents) afforded by LCRs to domestic industry.

Second, like all instruments of protection, LCRs ultimately insulate domestic firms from foreign competition, causing potential lags in the adoption of new technology and hampering the goal of nurturing competitive infant industries and an ecosystem of vibrant suppliers. Reviewing the impact that the removal of local content and other prohibited performance requirements exerted on the industrial and trade performance of a select group of developing countries (e.g. Argentina, Mexico, Pakistan, the Philippines, Vietnam and Ethiopia), a study by UNCTAD (2007)[27] noted that:

> "Firm conclusions are difficult to draw. The extent to which TRIMs have helped advance the objectives set out has varied considerably, reflecting the specific economic conditions and policy environment of the country using them. In some cases, TRIMs appear to have played a role in spurring foreign companies to source more locally

26 Susan Stone, James Messent, and Dorothee Flaig, "Emerging Policy Issues: Localisation Barriers to Trade," *OECD Trade Policy Papers, No. 180*, Paris: OECD Publishing, (2015), accessed April 12, 2016, http://dx.doi.org/10.1787/5js1m6v5qd5j-en; Gary C. Hufbauer, Jeffrey Schott, and Cathleen Cimino, "Local Content Requirements: A Global Problem," *Policy Analyses in International Economics 102* (Washington, D.C.: Peterson Institute for International Economics, 2013); Theodore H. Moran, *Foreign Direct Investment and Development: The New Policy Agenda for Developing Countries and Economies in Transition* (Washington, D.C.: Peterson Institute for International Economics, 1998); Cathleen Cimino, Gary Clyde Hufbauer, and Jeffrey J. Schott, "A Proposed Code to Discipline Local Content Requirements," *Policy Brief Number 14-6*, (Washington, D.C.: Peterson Institute for International Economics, 2014).

27 United Nations Conference on Trade and Development, *Elimination of TRIMs: The Experience of Selected Developing Countries*, (Geneva: UNCTAD, 2007).

in, or enhance their exports from, the host economy. The auto industry in Mexico and the motorcycle industry in Viet Nam are cases in point. In other instances, the impact appears to have been small or negative. The effectiveness of various TRIMs has been influenced by the clarity of objectives set, the capability of host country Governments to implement a given policy, the local absorptive capacity of the workforce and domestic enterprises, and the extent to which measures used have been compatible with other industrial and trade policies. For example, where local content requirements were not accompanied by efforts to boost the competitiveness of the domestic supplier base, their removal (and associated trade protection) is likely to force many local suppliers out of business."

Third, LCRs are often applied in a non-transparent manner, such that their possible impacts on downstream producers - in terms of price, quality, and potential delays - can once more be difficult to assess. This further insulates such measures from efforts at domestic reform and needed surveillance.

Fourth, LCRs can increase delays and costs, especially in infrastructure or capital-intensive projects, if quality local suppliers are difficult to find. These impacts are often unknown or go unmeasured but remain highly variable and context-specific, because they depend on supply and demand conditions in the local economy.

Fifth, because most LCR regimes involve processes imbued with some degree of administrative discretion, they are often associated with illicit practices and favouritism. This problem may be most acute when the domestic supply capacity consists of a small number of firms.

Sixth, LCRs are rarely limited in time and seldom feature "sunset" provisions foreseeing their elimination by a certain date. This latter feature can lead to long-lasting market distortions and rent-seeking behaviour by beneficiary industries.

Seventh, LCRs can generate perverse political economy outcomes, as the incentive structure for foreign investors may be skewed toward preserving a low-volume, high-profit, position within the protected host country market. In the extreme, such adverse political economy may incite foreign investors to oppose a transition towards greater openness.

5. Alternatives to local content requirements

Maximizing the benefits from alternative measures of industry support requires a good understanding of: (i) whether such requirements or support measures are needed; (ii) how they might influence firm conduct (including in terms of strengthened linkages to local suppliers) across different industries; (iii) whether the host country has the institutional capacity to monitor compliance with applied policies; (iv) the technological upgrading, employment creation, international certification or overall competitiveness conditions that should be attached to such requirements; (v) how much they will cost; (vi) their efficacy through the adoption of key performance indicators (KPIs) and aligned systems of monitoring and enforcement (M&E); (vii) whether evidence of policy failure over a reasonable time-frame will lead to their withdrawal.

5.1 Trade and investment policy measures

A first set of LCR alternatives can be found in the policy space afforded by various trade and investment policy instruments that remain weakly or (un-) constrained by law. Several such options can be readily identified.

5.1.1 Exploiting "water" in the tariffs

A common practice among WTO Members and signatories of preferential trade agreements in general is to preserve policy flexibility by maintaining a distance (or space) between their applied and bound tariff rates. Such space allows them the possibility of raising tariff protection levels without running afoul of their international commitments. Though the process of WTO accession typically deprives new members of the space generally preserved by founding Members – WTO acceding countries generally maintain fewer and lower tariff peaks and their tariff bindings are generally more closely aligned to applied tariffs, scope exists to maintain some space in sectors and sub-sectors that face greater competitive risks from market liberalisation.

If a government that decides to protect a certain activity or sector has a political choice between a new LCR and a higher tariff, the tariff will almost certainly represent the better economic choice. As noted earlier, the cost of a tariff is visible whereas that of an LCR is harder to determine. LCR specifications are more likely than tariffs to "play favourites" between local firms, because, in principle, tariffs are uniform and provide equal protection to all local firms whereas LCRs often favour a few firms. Tariffs need not delay the realisation of large investment projects; LCRs more often than not ensure delays. So while higher tariffs may not always represent a first-best policy, they are superior to LCRs as a means of targeted protection.[28] The scope for adjusting (raising) applied tariffs towards ceiling bindings may be significantly greater in the case of natural-resource and market-seeking forms of FDI than for efficiency-seeking investment, given the heightened sensitivity of the latter type of investors to higher input prices.

5.1.2 Exploiting flexibilities under the TRIMs Agreement

The TRIMs Agreement applies solely to investment measures affecting trade in goods and not to performance requirements, including LCRs, arising in services trade. To the extent, however, that performance requirements affect the conditions under which trade is performed in service industries, LCRs should be included in an acceding country's schedule of commitments under the General Agreement on Trade in Services ("GATS"), either in specific sectors or horizontally depending on their nature if a host country government wishes to maintain such measures in sectors, sub-sectors and/or modes of supply in which it has scheduled a liberalization commitment. This is so because LCRs inherently run afoul of GATS Article XVII (National Treatment), as they do under Article III.4 of the GATT.

Several types of performance requirements other than LCRs remain WTO-legal, though they are not always allowed under PTAs and IIAs. Indeed, the proliferation of PTAs and IIAs has, in recent years, been characterized by a significant broadening of the scope of prohibited TRIMs.

28 Meanwhile, economists generally agree that subsidies are preferable to tariffs or other forms of trade protection, because they are more visible, do not foreclose the market to competitive foreign firms, and do not impose a deadweight loss, through higher prices, on household and business consumers.

Among those performance requirements that remain WTO-legal are: (i) local training requirements; (ii) joint-venture requirements; (iii) technology transfer requirements; and (iv) export requirements. The above requirements can all be maintained under the WTO even as the economic literature urges caution with respect to the efficacy of joint-venture and technology transfer requirements, particularly mandatory ones, as described earlier. Here again, host country governments may be able to exercise greater policy leverage – and thus extract greater benefits - from relatively immobile investors, such as those characterizing natural-resource and market-seeking FDI projects. PRs directed at upgrading of human capital, particularly when their design involves collaboration (for instance, in vocational training curriculum design) between lead firms and local suppliers, have often proved effective in facilitating technology upgrading, as have export-related PRs.

Meanwhile, new forms of LCRs relating to data localisation requirements (i.e., the obligation for suppliers of online services to establish a server in a host country in order to provide services in the local market) escape discipline under the TRIMs Agreement even as they are proving highly contentious in digital trade circles. Concerns over data privacy and the regulation of cross-border data flows, the rising threat of cybercrime as well as the need for territoriality for taxation purposes and to ascribe origin to cloud-based transactions, all suggest that the above controversies and the quest for policy space linked to them appear unlikely to abate any time soon.

Despite the continued prevalence of LCRs and a track record of generally poor compliance with prohibited measures under trade and investment law, there is surprisingly little WTO jurisprudence under the TRIMs Agreement, with only 3 cases prosecuted to date, two of which involving automobile trade, while a third involved renewable energy equipment. The relative dearth of litigation may reflect the reluctance of WTO Members to challenge measures that many of them have been prone to maintain or introduce in the wake of the latest global economic crisis.

5.1.3 Exploiting flexibilities under the Agreement on Subsidies and Countervailing Measures ("ASCM")

The ASCM allows for a broad range of subsidies to be provided to local producers with a view to enhancing their competitiveness, subject to them not being contingent on favouring local purchases over imports nor being mandatorily linked to exporting, both of which are explicitly prohibited under the Agreement. Subsidies that target the domestic market are actionable only when (among other characteristics) they are specific to an industry and cause "adverse effects" to the interests of another WTO member.

So long as they are not framed in a sector or industry-specific manner but broadly available, production subsidy and incentive programmes enjoy significant policy immunity and are not actionable under the ASCM. In practice, few WTO dispute cases have arisen when subsidies alter market conditions solely within the territory of a WTO member. Only when the subsidized firm exports to foreign markets, does it become likely that another WTO member might bring a countervailing duty case. In practice, countries enjoy considerable room within the WTO rulebook to subsidize domestic firms. The most binding constraint on industry support is typically that flowing from countries' limited budget capacity. Furthermore, when industry support takes the form of investment incentives, foreign investors may, in practice, have a limited desire to challenge host country LCRs even as they impose costs on them.

In a manner reminiscent of the TRIMs Agreement, the ASCM does not impose disciplines on subsidies granted to service industries. Negotiations foreseen under Article XIV of the GATS on subsidies have hardly progressed since the days of the Uruguay Round, revealing a clear (and recurring) revealed preference (echoed as well under PTAs and IIAs) for regulatory inaction in this area and the preservation of policy space aimed at helping host states nurture infant service industries and, especially, design locational incentive programmes aimed at attracting foreign service suppliers.[29] In the absence of agreed subsidy disciplines under the GATS (and PTAs), only the obligations of Most Favoured Nation (MFN; Article II) and National Treatment (Article XVII) apply. In the case of the national treatment obligation of the GATS, it only applies when specific commitments are scheduled. Accordingly, acceding countries must inscribe all MFN- and NT-inconsistent subsidy and incentive measures in their GATS schedules of commitments and lists of MFN exemptions in completing their WTO accession negotiations.

Beyond subsidy disciplines, acceding members can further make use of various trade defence instruments in the goods trade area, such as safeguards, anti-dumping and countervailing measures under WTO law and their PTA equivalents. Many WTO members use such measures to regulate imports of various products with a view to achieving "substantially equivalent competitive opportunities" in the domestic market. While contingent protection instruments are not available for services trade, their use in goods trade offers scope for acceding country governments to address instances where domestic producers previously benefiting from LCRs are injured by import competition following WTO accession.

5.1.4 Exploiting flexibilities under the (plurilateral) Government Procurement Agreement

There is, as noted earlier, no obligation for an acceding member to join the WTO's plurilateral Government Procurement Agreement ("GPA"). Such flexibility may be of considerable importance to countries in transition with an extensive state presence in the economy (e.g. China, Russia, Vietnam, Kazakhstan), not least in light of the sheer weight of state purchases, but also to the extent that, so long as they eschew GPA membership, governments can continue to subject state purchases to local content rules that are not constrained by WTO law.

In many WTO Member states, rules governing public procurement are designed precisely to achieve local content objectives. This is so even in developed countries: Krugman and Obstfeld,[30] recall how, in order to qualify as a domestic product and claim a 25% price preference under the Buy American Act, foreign manufacturers of buses had to buy United States-made engines, transmissions, axles and tires.

Moreover, it bears recalling that even if a prospective WTO Member ultimately decided to join the GPA at some point in the future, it would still enjoy significant flexibility in regard to the scope of covered entities and applicable procurement thresholds with a view to offering a measure of protection to smaller or targeted local firms, including those previously subject to LCR benefits.

29 Pierre Sauvé and Marta Soprana, "Learning from Not Doing: Subsidy Disciplines in Services Trade," in *E15 Task Force on Rethinking International Subsidies Practices*, (ICTSD and World Economic Forum, April 2015).

30 Paul R. Krugman, and Maurice Obstfeld, *International Economics: Theory and Policy*, 6th ed. (Boston: Pearson Addison-Wesley, 2000).

5.1.5 Addressing localization requirements

In preparing for WTO accession and the abandonment of LCRs, many would-be Members contemplate the introduction of mandatory localization requirements for various types of services related to imports and/or use of machinery and equipment, such as repair and maintenance services. Beyond the generation of local employment and associated benefits (local purchases, value added, and taxes), such requirements respond to the need to avoid or reduce the possible production delays to investment projects – particularly sub-surface activities - that might result from having such services performed in the exporting or home country.

In considering such a policy alternative, acceding country governments may wish to ponder a number of considerations. These include the fact that firms using expensive or technically complex technologies or machinery will have a natural inclination to minimize the scope for any productive interruptions. The best way to do so is to localise key support functions in the host country and avoid the delays and transport costs that performing maintenance abroad would entail. Rather than mandating localization, host country governments may wish to work proactively with lead firms and focus on supplying the right ingredients of efficient "back-office" services – including properly trained specialised labour as well as access to low priced or weakly taxed (imported) spare parts. As with innovative supplier development programmes using a host of tax and other incentives (such as accelerated depreciation and wage subsidies) to reward lead firms working closely with domestic suppliers to strengthen their capabilities and competitiveness, lead investors can be voluntarily incentivized to train local workers in state-of-the-art repairs and maintenance and other related services.

It bears noting, however, that to the extent that localisation requirements constitute measures "*affecting trade in services*" able to modify conditions of competition in sectors and modes of supply subject to scheduled GATS commitments, acceding country governments may wish to avoid scheduling full cross-border (Mode 1) commitments (i.e., remain unbound) and entice foreign suppliers to trade and supply services through a commercial presence in the host country (Mode 3). By remaining unbound with regard to Mode 1 supply, a WTO Member would retain the right to introduce localization requirements in future.

Still, it is important to note that some degree of legal uncertainty characterises the treatment of localisation requirements under the GATS. This can be seen, for instance, in the context of ongoing plurilateral negotiations among a group of like-minded WTO Members towards a Trade in Services Agreement (TISA), from a recent submission by the European Union that proposed horizontal market access commitments for services that included a prohibition on LCRs, specifically LCRs "*to set up a commercial presence, to be resident, to designate a local agent, or to establish in any form of presence, including computing facilities, in its territory as a condition for the cross-border supply of a service covered in its commitments.*"[31]

5.1.6 Making use of other flexibilities under trade agreements

While a number of sources point to a recent spike in the use of WTO-illegal LCRs following the finan-

31 See European *Union, Plurilateral Services Agreement: Draft Text Provisions - Proposal by the European Union*, Brussels. European Commission, (July 2014), http://trade.ec.europa.eu/doclib/docs/2014/july/tradoc_152687.pdf (accessed April 12, 2016).

cial and economic crisis of 2008-09,[32] the longer-term trend, since the end of the Uruguay Round, has been marked by a progressive decline in the incidence of various performance requirements, including LCRs. Among the reasons for such a decline are the progressive liberalization of host country investment regimes, the need to comply with newly-agreed multilateral disciplines, notably those of the TRIMs and SCM Agreements, a rising tide of WTO+ disciplines on performance requirements arising from a proliferating set of PTAs as well as from IIAs further eroding industrial policy space, growing empirical evidence questioning the developmental efficacy of LCRs, as well as a marked intensification of cross-country locational competition directed at efficiency-seeking FDI in a world marked by increasing production fragmentation and the rise of GVC-driven trade and investment flows.

The above trends do not mean, however, that host countries have given up on their desire to influence the behaviour of firms. As LCRs and various other performance requirements have been phased out, there has been a trend towards using trade policy measures that achieve objectives similar to those of selected performance requirements. These include rules of origin in preferential trade agreements, as well as growing recourse to anti-dumping measures and various other non-tariff measures such as product standards.

Taking advantage of flexibilities allowed under Article XXIV of the GATT, 1994 regarding the creation of preferential trading areas, PTA signatories have made extensive use of rules of origin to increase local value added. Rules of origin determine the extent of domestic content a product must have to qualify as an internal product in a preferential trading area and, hence, have similar effects as local content requirements.

In addition to the non-LCR performance requirements described above, examples of other measures can be found in the literature. Environmental assessments are today a mandatory requirement of investment projects in many countries, particularly in extractive industries, but more generally in all sectors susceptible of exerting an impact on the environment. Such requirements provide host country governments with a means to reject investment project proposals that are seen as environmentally harmful. It can also generate local expertise in the provision of environmental impact assessments, all the more so as requirements for the performance of such assessments by local service providers are not prohibited under the GATS, so long as limitations are scheduled or no commitment is undertaken in the relevant sector.

5.2 Adopting "light-touch" industrial policy measures

Beyond the flexibilities available under trade and investment agreements, WTO acceding countries have a number of tools at their disposal to replace LCRs with economically efficient alternatives able to promote economy-wide gains in competitiveness and strengthen linkages between domestic suppliers and lead firms, be they domestic or foreign. For the most part, these fall under the broad rubric of industrial policy. Following Pack and Saggi (2006),[33] industrial policy can be defined as "any type of selective intervention or governmental policy that attempts to alter the sectoral structure of production toward sectors that are expected to offer better prospects for economic growth than would occur in the absence of such intervention."

All countries at some point in their development path make use of industrial policy. The merits and

32 Hufbauer et al., *Local Content Requirements: A Global Problem; Stone et al., Emerging Policy Issues: Localisation Barriers to Trade.*

33 Howard Pack and Kamal Saggi, "The Case for Industrial Policy: A Critical Survey," *Policy Research Working Paper, No. 3839*, (Washington, D.C.: The World Bank, 2006).

demerits of such policies have long been debated and such debates tend to be strongly influenced by prevailing ideological currents in economics and approaches to governance and policy-making. Considered with some measure of scepticism during the heyday of the "Washington consensus", the more recent years have witnessed a significant reappraisal of the case for more activist state support to industry.[34]

Industrial development objectives incorporate a range of policies, from reasonably broad to quite specific. The broader objectives tend to focus on creating new sectors to diversify a country's industrial base. More targeted measures focus on developing upstream industries, increasing the competitiveness of existing industries with a view to developing exports, as well as supporting the development of targeted types of enterprises (e.g. SMEs) or special interest groups (e.g. minorities or specific regions in an economy). They can also encompass other objectives, such as reducing a country's carbon footprint through the development of alternative energy sources or promoting agglomeration economies through the advent of clusters within special purpose industrial parks or economic zones. Political economy forces are also often at play in the design of industry support policies, matching a public desire to direct government procurement spending on domestic firms and products, to prop up newly developed (infant) industries or to offer protection to sectors made vulnerable by greater exposure to foreign competition.[35]

Industrial policy can, thus, be framed in a horizontal manner or pursue sector-specific objectives. Horizontal measures aim to provide the best possible environment for the economy to expand along its existing areas of comparative advantage. Such measures avoid providing unduly targeted measures towards specific sectors of the economy and focus instead on how best to enhance economy-wide performance, allowing the economy to move to a higher productivity plane, a process Ghani, Grover Goswami and Kharas[36] have dubbed "growth escalators".

The challenge for governments is to ensure that horizontal and selective policy responses work in a complementary manner, all the more so as they typically operate over different time horizons. Many of the horizontal initiatives described below require upfront investments in capacity and institutions whose benefits can only realistically accrue over the medium- and long-term. Meanwhile, selective lighter touch industrial policies can be designed to produce results more closely

34 Philippe Aghion, Julian Boulanger, and Elie Cohen, "Rethinking Industrial Policy," *Bruegel Policy Brief* 2011/04, (June 2011); Bernard M. Hoekman, "Subsidies and Spillovers in a Value Chain World: New Rules Required?," *E15 Task Force on Rethinking International Subsidies Practices*, (Geneva: ICTSD and World Economic Forum, April 2015); Patrick Low and Julia Tijaja, "Effective Industrial Policies and Global Value Chains," in *A World Trade Organization for the 21st Century: The Asian Perspective*, ed. Richard Baldwin, Masahiro Kawai, and Ganeshan Wignaraja, ADBI Series on Asian Economic Integration and Cooperation, (London: Edward Elgar, 2014), 110; Mariana Mazzucato, "The Creative State," *Project Syndicate*, April 16, 2015, https://www.project-syndicate.org/commentary/government-investment-innovation-by-mariana-mazzucato-2015-04(accessed April 12, 2016); Theodore H. Moran, "Industrial Policy as a Tool of Development Strategy," in *E15 Expert Group on Reinvigorating Manufacturing: New Industrial Policy and the Trade System*, (Geneva: ICTSD and World Economic Forum, January 2015); Isabelle Ramdoo, "Industrial Policies in a Changing World: What Prospects for Low-Income Countries?," *E15 Expert Group on Reinvigorating Manufacturing: New Industrial Policy and the Trade System*, (Geneva: ICTSD and World Economic Forum, May 2015); Dani Rodrik, "The Return of Industrial Policy", *Project Syndicate*, (April 12, 2010) http://www.project-syndicate.org/commentary/the-return-of-industrial-policy#2mk4iiYbUAWJT7p8.99 (accessed April 12, 2016).

35 Stone et al., *Emerging Policy Issues: Localisation Barriers to Trade.*

36 Ejaz Ghani, Arti Grover Goswami, and Homi Kharas, "Service with a Smile," *PREM Economic Premise, No. 96*, (November 2012), http://siteresources.worldbank.org/EXTPREMNET/Resources/EP96.pdf (accessed April 12, 2016).

attuned to political economy realities (e.g., the political life-cycle of governments). The interaction of the two policy fronts can lead to needed short-term gains while building the underlying long-run framework necessary for growth and sustainable development.

Reviewing a range of experiences across countries and over time as industrial policies have evolved, Harrison and Rodriguez-Clare[37] and Moran[38] draw attention to the difference between "hard/heavy-form" and "soft/lighter form" industrial policies. "Hard" or "heavier touch" industrial policy uses measures to distort prices or affect quantities rather than addressing the underlying problems related to industrial development. Their work, and that of others, finds generally little evidence supporting the claim that such policies will lead to long-term growth or sustainable diversification in the economy.[39]

Measures commonly used in "hard/heavy form" industrial policy include protective tariffs shielding local producers from global competition, strategic anti-dumping and restrictive rules of origin aimed at diverting FDI towards the host country market, export subsidies, tax breaks for foreign companies, local content requirements, as well as mandatory technology-sharing and joint-equity/ownership requirements.

Much recent literature draws attention to the aims and means of "soft" or "lighter touch" industrial policy, which addresses a range of problems that hamper productivity growth in existing sectors or create barriers to developing new ones. The goal of the latter type of industrial policy is to develop a process where industry, government, and other actors in the public and private spheres work together to set strategic priorities, address information asymmetries, resolve coordination problems, experiment with potential interventions, minimize the impact of vested interests, and improve productivity.[40]

While an all-encompassing list of measures falling within the realm of "soft/light touch" industrial industry policy is difficult to compile, none offer policy-makers and politicians the immediacy of the perceived short-term gains associated to LCRs which, alongside their fiscal neutrality, make them such an attractive industrial policy tool. In searching for workable, effective and WTO-compliant alternatives to local content requirements, it is important to recall that there are no short-term magic bullets able to confer the same, immediate, degree of protective relief to domestic producers. Rather, countries are confronted with a mix of policy tools that can be used with one common objective in mind: that of enhancing the productivity of firms and workers, reducing the cost and increasing the quality of locally produced goods and services and enhancing the business environment in which firms and workers operate.

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37 Ann Harrison and Andrés Rodriguez-Clare, "Trade, Foreign Investment and Industrial Policy for Developing Countries," *NBER Working Paper 15261,* (August 2009), http://www.nber.org/papers/w15261.pdf (accessed April 12, 2016).

38 Theodore H. Moran, "Foreign Investment and Supply Chains in Emerging Markets: Recurring Problems and Demonstrated Solutions," *Working Paper No. 2014-12,* Peterson Institute of International Economics (December, 2014).

39 Harrison and Rodriguez-Clare, *Trade, Foreign Investment and Industrial Policy for Developing Countries;* Moran, *Foreign Investment and Supply Chains in Emerging Markets; Hufbauer et al., Local Content Requirements: A Global Problem; Patrick Low and Julia Tijaja, Effective Industrial Policies and Global Value Chains.*

40 Harrison and Rodriguez-Clare, *Trade, Foreign Investment and Industrial Policy for Developing Countries;* Hufbauer *et al., Local Content Requirements: A Global Problem; Moran, Foreign Investment and Supply Chains in Emerging Markets; Stone et al., Emerging Policy Issues: Localisation Barriers to Trade.*

The key consideration in seeking credible industrial policy alternatives to LCRs is that the measures proposed be directed at resolving specific barriers or bottlenecks to development and competitiveness, and not at distorting prices. The alternative policy suggestions made below all fall under the heading of "soft" or "light touch" industrial policies. These policies can be directed to the same objectives as those envisaged by LCRs, namely industrial development, technological upgrading, and employment creation, but generate less distortive outcomes whilst also promoting gains in economy-wide efficiency and good governance.

Following the typologies set out in Hufbauer et al. (2013),[41] Moran (2014),[42] and Stone et al (2015),[43] alternative policies can be differentiated between horizontal and selective policies. Horizontal policies aim to improve the "framework conditions" or the general business environment in the economy, whereas selective policies are those targeted at a specific sector, technology, or task depending on the nature of the barrier that has been identified. Selective measures can focus on an economic sector or sub-sector, a technology that can be used across multiple sectors, or a specific task within a supply chain.

5.2.1 Horizontal policies

The role of horizontal policies is, as noted above, to provide the best possible environment for the economy to expand along its existing areas of comparative advantage. Horizontal industrial policy measures include issues such as: (i) improvements in the business and regulatory environments (often referred to as "doing business" conditions); (ii) pro-competitive reforms in key service (input) industries, such as telecommunications, transportation, and financial services; (iii) enhancing the quality of physical (connectivity) infrastructure and logistics performance to reduce trade costs; (iv) boosting productivity, including through technological upgrading and the development of human capital through targeted training programmes; (v) institutional upgrading, particularly as concerns the formulation and implementation of trade and investment policies capable of avoiding regulatory or political capture and rent-seeking conduct; (vi) providing better access to finance through financial deepening and financial sector reforms.

None of the above policy measures will likely come as a surprise to policy officials involved in the day to day formulation and implementation of industry support measures. Yet, the fact that the above policy tools are not new does not mean that the results secured could not be enhanced with a view to making the domestic economy more robust and local firms better able to meet the sourcing needs of lead investing firms. No host country is immune from the need to review and improve the business regulatory environment, and attempts should be made to do so across the whole range of regulatory processes that impact on business efficiency.

The rising tide of trade in intermediate goods and services, linked in global value chains with inputs from multiple countries and coordinated by numerous business trips, product and data exchanges, greatly increases the importance of trade transaction costs ("TTCs") and of policies directed at their minimisation. Evidence shows that TTCs decisively separate countries that par-

41 Hufbauer et al., *Local Content Requirements: A Global Problem.*
42 Moran, *Foreign Investment and Supply Chains in Emerging Markets.*
43 Stone et al., *Emerging Policy Issues: Localisation Barriers to Trade.*

ticipate fully in world commerce from those that remain more isolated. As Hufbauer et al.,[44] note, TTCs are not simply a matter of geography and fate. Targeted policies - grouped under the label of "trade facilitation" -can sharply reduce the TTC burden even for landlocked countries. TTCs often represent much greater impediments to commerce for most developing countries than are tariffs. Not surprisingly, logistics outperformers have been shown to enjoy faster trade expansion, more rapid economic growth, and more diversified exports.

5.2.2 Selected industrial policy support measures

Selective industrial policies are targeted at particular barriers affecting a specific sector or subsector of the economy. To be successful, policymakers need to identify the market failure in the specific sector, and then develop the precise measure that will resolve the failure as efficiently as possible. The use of selective policies – often likened to "picking winners" - has been particularly contentious in the past, confronting policy-makers with acute informational problems that complicate attempts at properly scaling the needed policy intervention.

A key aspect of needed institutional adaptation involves recognition that the focus of the government should not be on "picking winners" but rather on encouraging strategic collaboration and coordination with the private sector and other key stakeholders (Rodrik, 2008).[45] Such collaboration is intended to identify the most significant barriers to sector development, design effective interventions, evaluate those interventions, and then learn from possible mistakes in the process. Because policymakers generally have limited knowledge about the activities that are most deserving of support, it is best to design flexible policies with well specified objectives able to improve overall allocative efficiency, operate within agreed timelines (including sunset provisions), evolve key performance indicators and clearly defined exit strategies when policies reveal themselves ineffective.

The existence of significant information barriers requires mechanisms to obtain information about market failures from market participants. A prime example of such barriers concerns information gaps between lead investors and suitably qualified domestic suppliers. Rodrik (2008)[46] and Moran (2014),[47] both, emphasize how such mechanisms need to be 'embedded' within the market to enable closer collaboration between the private sector and the government. Existing examples of such mechanisms include deliberation councils, supplier identification and development programmes (e.g., "talent scouts" and "marriage counsellors" linking foreign invested firms to potential local suppliers), investment advisory councils, sectoral round-tables, private-public venture funds, supplier qualification and certification programmes, design of vocational training curricula developed in partnership with private (foreign) firms, etc.

The most prominent types of targeted industry support measures include the following: (i) *labour and skills upgrading*: targeted skills policies, apprenticeships, training partnerships with foreign firms, overseas scholarships to address skill gaps, long-term collaborative strategies for education and research between industry and universities; joint development of vocational training programmes between lead firms and local suppliers; attraction of foreign universities; capacity building for enhanced labour market

44 Hufbauer et al., *Local Content Requirements: A Global Problem.*

45 Dani Rodrik, "Normalizing Industrial Policy," *Working Paper No.* 3, World Bank on behalf of the Commission on Growth and Development, (2008).

46 Ibid.

47 Moran, *Foreign Investment and Supply Chains in Emerging Markets.*

forecasting; creation of a fund for local training upgrading via levies on firm turnover; (ii) *technological upgrading*: nurturing the emergence of firm clusters, providing R&D subsidies and grants for innovative projects proposed by local firms and carried out by local research institutions; awarding prizes and tax benefits to innovative firms; promoting long-term collaborative strategies for education and research between firms, industry associations and universities; developing production subsidy programmes whose disbursements are linked to meeting internationally agreed standards and certification; (iii) *investment promotion*: enhanced overall investment promotion agency ("IPA") performance to identify a select range of priority sectors for investment attraction and retention, address informational deficits and match lead foreign firms with a range of qualified domestic suppliers. The role of IPAs is particularly important in addressing informational deficits between lead investors and local suppliers through a range of "marriage counselling" activities whilst offering various corporate social responsibility-related incentives to lead firms who identify, work with and durably strengthen promising local suppliers; (iv) i*nvestment incentives* directed to attracting lead firms in target sectors (and, perhaps more controversially, their lead foreign suppliers) with a view to increasing competition in the domestic market and compelling local suppliers to raise their overall performance at a faster pace, but subject to weighing the fiscal costs involved and developing robust means of measuring the efficacy of incentive programmes; (v) *systems and institution*s: sectoral competitiveness strategies, cluster policies, and strategic planning with industry. Experience from other countries suggests the centrally important role of investment promotion agencies and of special economic zones endowed with the critical mass of human capital, business services and logistics and telecommunications connectivity, and (vi) *access to land*: provision of infrastructure, creation of special economic zones (SEZs) and changes to zoning policies to enable the clustering of firms in related lines of business so as to promote agglomeration externalities.

5.3 The crucial role of corporate social responsibility and supplier development programmes

Creating incentives for large companies, especially multinational firms ("MNCs"), to partner with local enterprises can help host country firms to become reliable suppliers and enhance their own productivity and competitiveness, including in export markets. MNCs represent an important gateway for local companies to join global value chains and thus tap the potential of foreign markets. MNCs are generally keen to source locally a large proportion of the inputs they require for manufacturing purposes. For MNCs, finding reliable local suppliers will mean lower cost of inputs, including lower costs of transport and reduction of inventories.

Quality and prices are key drivers of the competitiveness of local firms. Local companies and MNCs will buy local goods and services provided they meet international quality standards and can compete with the price of imports. Quality and safety are the primary considerations for the procurement decisions of these companies. Thus, promotion policies will be successful if the achieved quality of the output of local firms as suppliers meets international product and process standards, including safety and environmental protocols.

Rather than relying on WTO-illegal local content quotas, host countries around the world have in recent years increasingly turned their attention to working with foreign investors in developing innovative supplier development programmes.[48] Such programmes can be promoted as part of

48 Supplier development programmes are an important tool to promote the competitiveness of local companies. They may help to reduce and eliminate constraints to competitiveness of local companies by: (i) helping firms to achieve relevant international certifications; (ii) linking firms to MNCs; (iii) providing consultancy on specific aspects of business; (iv) creating a forum for MNCs to disclose their sourcing needs to local firms;

a broader competitiveness strategy for local firms. These programmes aim at ensuring that local companies have or acquire the capability and skills to provide goods and services to other companies in the value chain. By partnering with larger multinational firms, local enterprises can acquire technology, skills and improved manufacturing and managerial practices.

Supplier development programmes typically reward those foreign companies that undertake extra efforts to help local suppliers, whether by means of tax deductions (for instance through accelerated depreciation of investments in new machinery) or other payments to partially reimburse firms' expenditures in helping local industries. Such programs are proving increasingly effective alternatives to LCRs and as means to build durable backward linkages between lead investors and local suppliers.

The scope of a supplier development programme will depend on the identifiable needs of local companies to allow them to become part of a specific value chain. In general terms, the objective is for foreign investors and dynamic local firms to be able to source high quality, high value-added goods and services from local companies.

Moran[49] showcases the model developed by Singapore's Economic Development Board as one example of incentive compatible best practice. The Board offered to reimburse the salary of a manager from each multinational affiliate who had responsibility for inviting local firms to participate in the affiliate's own training programmes and identify which firms showed promise of qualifying as suppliers. Such a "vendor development" model used foreign investors as talent scouts to sort through potential suppliers, and then helped the most capable to finance those improvements recommended by the investors.

To a considerable degree, supplier development programmes proceed from best practices emerging from corporate social responsibility ("CSR") policies. For instance, the Global Reporting Initiative, a leading NGO initiative aimed at promoting the use of sustainability reporting, recommends that manufacturing multinationals report on how much they buy locally. Similarly, the OECD's CSR Guidelines focus on two important issues taken up by supplier development programmes: (i) encouraging local capacity building through close co-operation with the local community, including business interests, as well as developing the enterprise's activities in domestic and foreign markets, consistent with the need for sound commercial practice; and (ii) encouraging human capital formation, in particular by creating employment opportunities and facilitating training opportunities for employees.[50]

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and (v) developing important links for technology transfer to SMEs from both MNCs and training institutions. Supplier development contributes to industrial upgrading. These programs can help in a variety of areas, e.g. adoption of new technologies, enhancement of managerial processes and skills, and improvement of quality standards and certification processes. Longer term benefits to other sectors may also be achieved through supplier development programs. The development and accumulation of new skills and competencies among local workers will generate spillovers that may be transferred to other sectors in the economy. The promotion of local suppliers will contribute to increased local employment, skills, and may even lead to technology transfer and improved capital provision for local small and medium sized enterprises. Supplier development programs contribute to develop backward linkages between multinational companies and local suppliers. Backward linkages between multinational companies and local suppliers are increasingly recognized as key channels for dissemination of benefits from FDI into a local economy.

49 Moran, *How Does FDI Affect Host Country Development*?.

50 Organisation for Economic Cooperation and Development, *OECD Guidelines for Multinational Enterprises*, 2011 Edition (May 25, 2011), II. General Policies.

CSR pressures can inspire targeted actions on the part of lead investor firms. As Moran (2011)[51] notes, socially responsible firms can ask themselves several questions: Has the firm designated a manager to be a "talent scout" to search out potential indigenous suppliers? Does the firm provide production assistance, managerial advice, and advance purchase orders to potential indigenous suppliers? Does the firm have procedures to "qualify" and "certify" potential indigenous suppliers (e.g., ISO 9000 certification)? Does the firm have a programme to introduce qualified indigenous suppliers to sister affiliates in the region, thereby promoting exports?

Governments can help implement CSR prescriptions. Singapore and Malaysia, for example, have set up industrial parks for local suppliers adjacent to their export processing zones that house multinational corporations. They have also established programmes to link foreign multinationals with lists of indigenous firms in each sector; they finance equipment recommended by the foreign firms and offer certification instruction (Moran 2011).[52]

Requirements to implement an approved supplier development programme represent an attractive alternative to enforcing local content rules. To succeed, such programmes should: (i) foster adoption of new technologies by the suppliers and produce measurable improvements in value-added; (ii) upgrade managerial and technical skills; (iii) achieve measurable improvements in managerial practices; (iv) achieve measurable improvements in quality output and quality processes and management; and (v) result in the insertion of local suppliers into GVCs, domestically at least and preferably within export markets over time.

Moreover, successful supplier development programmes are ones where information is made available to suppliers on the needs of larger companies, thereby enabling suppliers to promote themselves on the basis of their understanding of customers' needs.

6. Concluding remarks

This paper explored a number of industrial policy options and constraints that confront countries that accede to the World Trade Organization and stem from the obligation to phase out non-compliant local content requirements (LCRs). The widespread recourse to various local content practices and their political economy appeal make their removal a daunting task in many countries, particularly those characterized by weak productive diversification and a heavy reliance on extractive activities.

The paper reviewed the key policy rationales behind the prohibition of LCRs and highlighted a number of alternative measures of industry support available to WTO acceding countries, placing particular emphasis on corporate social responsibility incentives and the design of supplier development programmes aimed at strengthening linkages between foreign invested or lead firms to an ecosystem of typically small and medium-sized local suppliers.

The process of WTO accession confronts decision-makers with the need to phase-out those LCRs that run afoul of WTO law. This is notably the case under the Agreement on Subsidies and Countervailing

51 Theodore H. Moran, *Foreign Direct Investment and Development: Launching a Second Generation of Policy Research: Avoiding the Mistakes of the First, Reevaluating Policies for Developed and Developing Countries* (Washington, DC: Peterson Institute for International Economics, 2011).

52 Ibid.

Measures (ASCM), which prohibits the granting of subsidies made contingent on local content use. It is equally the case under the Agreement on Trade-Related Investment Measures (TRIMs), which counts LCRs among its list of prohibited performance requirements. WTO membership similarly compels acceding country policy-makers to ensure that the purchase and sales practices of state-affiliated enterprises are conducted on a non-discriminatory basis when such enterprises are engaged in commercial activity.

At the same time that it forecloses the continued use of instruments long present in the industrial policy arsenal of would-be members, WTO accession also affords them space for maintaining or enacting various types of performance requirements (PRs), subsidies and incentives that do not contravene the SCM and TRIMs agreements. Joining the WTO also makes it possible for an acceding country to safeguard or enact LCRs that remain permissible under the General Agreement on Trade in Services (GATS). Meanwhile, acceding country governments must weigh the pros and cons of assuming the additional LCR-related constraints that would result from a decision to (voluntarily) join the WTO's plurilateral Government Procurement Agreement (GPA).

Even before concluding their WTO accession negotiations, it bears recalling that the ability of candidate countries' for accession to use LCRs is often already constrained. This may notably be the case under various preferential trade agreements entered into, the vast majority of which today feature comprehensive investment chapters that prohibit a range of performance requirements that is typically greater than those subject to WTO disciplines under the TRIMs Agreement. The policy space of acceding countries may be further constrained by the commitments agreed to under bilateral investment treaties (BITs), notably those entered into with developed countries, the majority of which specifically proscribe the use of a large number of performance requirements, including LCRs.

Joining the WTO offers acceding countries the opportunity to take stock, subject to careful economic scrutiny regarding their efficacy, of a range of WTO-compliant alternatives to LCRs able to lend support to local suppliers, industries and workers with a view to promoting sustained gains in productivity, competitiveness and economy-wide performance whilst also helping secure needed economic diversification aims. Such alternatives can be found both in the realm of trade and investment policy instruments that remain free of legally binding constraints or whose use is permissible under trade and investment law, as well as in the realm of industrial policy, particularly so-called "lighter touch" industry support measures that aim at enhancing economy-wide performance.

A closing word of caution is nonetheless in order. The various LCR alternatives identified in this paper offer no magic bullets to would-be WTO Members. In becoming a full-fledged member of the multilateral trade community, such Members will confront the same obligations, policy constraints and competitiveness challenges that all other WTO Members face. And they will have to do so with the same policy toolbox available to their WTO partners. None of the alternatives on offer in this paper can offer acceding country governments the degree of immediate and seemingly costless protection that LCRs might appear to provide.

To a considerable degree, the above discussion is largely moot to the extent that the use of LCRs is no longer a viable legal option for WTO Members. This does not imply, of course, that the objectives of promoting more rapid industrialization and economic diversification, improving export

performance or encouraging local sourcing have ceased to matter to host country governments. Nor does it mean that WTO members have fully renounced the use of PRs, including LCRs. Quite the contrary. A major paradox of global governance today, made more evident in the wake of the policy response to the financial crisis of 2008-09, is that the international community has agreed to ban policy tools that most countries continue to use widely and get away with.

Still, the above discussion underlines the importance of exploring alternative measures of industry support that can help achieve desired policy objectives without violating internationally-agreed principles. This paper's review of the literature devoted to PRs and LCRs suggests that the optimal policy mix best able to address industrialization objectives remains highly country- and context- specific. In considering the alternatives on offer in this paper, policy makers must accept, even if grudgingly, that there is no ready-made policy tool that can be taken out of a magician's hat and applied across the board as a perfect substitute to what are and remain WTO-illegal LCR measures.